REMARKS

A.   **Status of the Claims**

Claims 26-49 are pending. Claims 26, 32, 38, and 44 are independent. In the present response, Applicants have amended claims 26, 27, 32, 38, 44 and 45. No new matter has been added.

B.   **Summary of the Non-Final Office Action Mailed January 06, 2009**

The Non-Final Office Action mailed January 06, 2009 included: (i) a rejection of claims 26 and 44 under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter; (ii) a rejection of claim 27 under 35 U.S.C. § 112, second paragraph, as allegedly indefinite; (iii) a rejection of claims 26-28, 30-34, 36-40, and 42-29 under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent 6,877,005 to Hunter et al. ("Hunter"); and (iv) a rejection of claims 29, 35, and 41 under 35 U.S.C. § 103(a) as allegedly obvious in view of Hunter and U.S. Patent 5,727,051 to Holender et al. ("Holender"). Applicants thank the Examiner for the thorough examination.

C.   **Response to the § 101 Rejection**

Claims 26 and 44 stand rejected under 35 U.S.C. § 101 as allegedly drawn to non-statutory subject matter. (Office Action, p. 3) Without conceding the merits of the § 101 rejection, and in an earnest attempt to advance prosecution, Applicants have amended claims 26 and 44 to recite hardware elements. The subject matter of the amendments can be found generally throughout Applicants' filed specification, including but not limited to, for example: (i) Figures 2, 3B, 4, and 5, (ii) page 6, line 10 - page 8, line 6; (iii) page 8, line 26 - page 10, line

17, and (iv) page 11, line 4 - page 15, line 11. No new matter has been added. Applicants

respectfully request withdrawal of the § 101 rejection in view of the amendment.

D. Response to § 112, Second Paragraph, Rejection

Claim 27 stands rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite

for reciting the claim term "substantially." (Office Action, p. 3) Without conceding the merits

of the § 112 rejection, and in an earnest attempt to advance prosecution, Applicants have

amended claims 27 and 45 to remove the claim term "substantially." Applicants respectfully

request withdrawal of the § 112 rejection in view of the amendment.

E. Response to the § 102(e) Rejections based on Hunter

Claims 26-28, 30-34, 36-40, and 42-29, which includes independent claims 26, 32, 38,

and 44, stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Hunter. (Office

Action, p. 4) In response, Applicants submit that the rejection is improper and should be

withdrawn for at least the reason that Hunter does not disclose, expressly or inherently, each and

every recited claim element. At a minimum, Hunter fails to disclose, "searching the data for an

iterative search result using a subsequent key comprising the subtree index found in a preceding

search and at least a next portion of the first key," as recited in representative claim 26.

Additionally, Applicants do not concede that Hunter is prior art with respect to the present

application, and Applicants reserve the right to antedate the Hunter reference.

1. Hunter does not disclose "searching the data for an iterative search result using a subsequent key comprising the subtree index found in a preceding search and at least a next portion of the first key"

In contrast to claim 26, Hunter discloses "a method and apparatus for…decimating a

mask and identifying a longest matching prefix of a given address in a forwarding database,

routing table, or the like." (Hunter, col. 1, lines 24-26) Hunter's disclosed method includes "producing a hash index based on the address [to be searched for in the lookup table] and a mask" by applying a hash function to the address. (Hunter, col. 7, lines 55-62) "The initial hash index is typically based upon the whole address." (Hunter, col. 7, lines 56-60) Hunter searches for the hash index in the lookup table, and if the hash index is found in the lookup table, then the search function is complete. But if the hash index is not found in the lookup table, then Hunter (i) creates a new, shorter hash index "by masking off the rightmost one bit, i.e. the least significant bit containing a one, in the address," (ii) applies the hash function to the masked address to create a new hash index, and (iii) searches for the new hash index in the lookup table. (Hunter, col. 8, lines 5-6; col. 8, line 40 - col. 9, line 13; col. 9, line 14 - col. 10, line 6) Because Hunter's approach to mask decimation, hash index creation, and hash index searching is "not dependent upon results of a memory access" (Hunter, col. 8, lines 8-11), Applicants submit that Hunter does not disclose "searching the data for an iterative search result using a subsequent key comprising the subtree index found in a preceding search and at least a next portion of the first key," as in representative claim 26.

2.   **Claims 26-49 are allowable over Hunter**

Because Hunter does not disclose, expressly or inherently, "searching the data for an iterative search result using a subsequent key comprising the subtree index found in a preceding search and at least a next portion of the first key," as recited in claim 26, Applicants submit that Hunter does not anticipate claim 26, and that claim 26 is therefore allowable over Hunter. And because claims 32, 38, and 44 recite elements similar to those recited in claim 26, Applicants further submit that claims 32, 38, and 44 are allowable over Hunter for at least the reasons articulated above with respect to claim 26. Additionally, Applicants further submit that claims

27-31, 33-37, and 39-43, and 45-49 are allowable for at least the reason that they depend from allowable claims 26, 32, 38, and 44, respectively.

F. Response to the § 103(a) Rejections based on Hunter and Holender

Dependent claims 29, 35, and 41 stand rejected under 35 U.S.C. § 103(a) as allegedly obvious over the combination of Hunter and Holender. (Office Action, p. 6) Without conceding the merits of the other assertions set forth in the Office Action, Applicants submit that claims 29, 35, and 41 are allowable over the combination of Hunter and Holender for at least the reason that Hunter does not disclose the elements of independent claims 26, 32, and 38 from which claims 29, 35, and 41 depend, and that the addition of Holender does not overcome the deficiencies of Hunter set forth in Section E, *supra*.

G. Conclusion

Applicants submit that the present application is in condition for allowance, and Applicants respectfully request a Notice of Allowance. If the Examiner feels that further dialog would advance the application to issuance, the Examiner is invited to telephone the undersigned at (312) 913-0001.

Respectfully submitted,
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